

## Standards of Public Land Health Evaluation of 64025 UPPER SALT CREEK Allotment [ 12/06/2006 ]

The Roswell Field Office conducted (RHA) Rangeland Health Assessments at 7 study sites within Upper Salt Creek, allotment #64025. These assessments evaluated Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within the vicinity of each study site. Existing monitoring data was incorporated into and in support of these field assessments. A summary of each assessment is attached and shown in the following table.

Study Area or Assessment Area	UPLAND			BIOTIC			RIPARIAN		
	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet
64025-#1-F091	X			X			N/A		
64025-#2-F092	X			X			N/A		
64025-#3-2-F096	X			X			N/A		
64025-#3-F093	X			X			N/A		
64025-#4-F094	X			X			N/A		
64025-#5-2-F097	X	*		X			N/A		
64025-#5-F095	X	*		X			N/A		

Twenty-two (22) indicators for Rangeland Health were evaluated for the public land on the Upper Salt Creek allotment #64025. Ten of these assessed soil site stability; 11 hydrologic function; and 13 biotic integrity. These qualitative assessments in conjunction with quantitative information gathered from previous data collected on 7 trend plot locations within this allotment were utilized to make rangeland health determinations. Quantitative evaluations are performed by the Roswell Field Office, which include some or all of the following: ground and vegetative cover and composition, production, frequency and ecological condition. These collections, which were initiated in the late 1970's/early 1980's, are scheduled and conducted approximately every 5 years.

There are seven study sites on this allotment. All were visited between March 23, 2007 and April 19, 2007. Three sites are Shallow SD-3; two are Very Shallow CP-4; one is a Loamy CP-4; and one is a Loamy SD-3. The allotment contains five main pastures with study sites in each pasture. Pastures #3 and #5 have two study sites each. These sites are intended to serve as key areas for the pastures and provide an indication of rangeland health for the pastures and for the allotment.

None of the rangeland health indicators for any of the study sites rated beyond "moderate"; most rated "slight to moderate" or "none to slight". No major problem areas were identified on the allotment with the exception of gullies forming as a result of roads or other constructed features. The most notable area was a network of gullies radiating out from the ranch headquarters.

No grazing use was observed in pastures #1 or #2. Light use was observed in pastures #3 and #5. Moderate use (heavy on black grama) was observed in pasture #4.

Generally speaking, pastures #1 - 4 had soils that were relatively stable; however, all showed signs of some erosion. Pasture #5 had a slightly greater departure from the ESD with water flow patterns and pedestalling rating "moderate". Hydrologic function was rated similarly.

Biotic integrity indicators generally rated "slight to moderate" or "none to slight" for all study sites within the pastures. For all areas, there is a departure in the Functional / Structural Groups. In all cases, there has been a shift in the grass composition from what is described in the ESDs. The greatest departure was noted in pasture #3 on the Loamy CP-2 site. This site rated "moderate" for F/S Groups due to the dominance of tobosa grass and the increase of burrograss. Invasive Plants generally rated "slight to moderate" with one exception. Site 64025-#5-2-F097 rated "moderate" due to the apparent increase in cholla, prickly pear and mesquite.

The following discussion is a site by site, pasture by pasture evaluation.

Pasture #1 with its study site was visited on March 23, 2007. This pasture contains approximately 3766 acres, most of which is public land. The study site representing this pasture is within a Shallow SD-3 ecosite. According to GIS, other ecosites within this pasture include Very Shallow SD-3, Limestone Hills SD-3 and Loamy CP-2. Most of the pasture contains gently sloping, undulating terrain. The southeast part of the pasture has more topographic relief along drainages flowing into Salt Creek. No livestock use was observed at the study site.

Soil stability at the study area was relatively high. All soil stability indicators rated either "slight to moderate" or "none to slight". High levels of surface rock help protect the soil surface. There were no rills or gullies on site; however, there are gullies in the vicinity associated with roads and other constructed features. There are active gullies networking out from the ranch headquarters. Some sheet erosion has occurred and is occurring as indicated by pedestalling, particularly in flow patterns. Bare ground is much less than expected for the ecosite. The soil surface is relatively resistant to erosion in large part because of the amount of surface rock.

Hydrologic function was near what is expected for the site. Herbaceous cover is greater than expected for the ecosite. Some litter movement was observed within water flow patterns.

Indicators assessing biotic integrity for the site all fell into "slight to moderate" or "none to slight". Late growing season precipitation was greater than normal in 2006, making the annual production relatively high compared to the production potential for the ecosite. There has been in a shift in the composition of grasses. Black and other grammas are adequately represented, but threeawns are dominant. *Tridens* spp. are increasing. Invasive plants rates "slight to moderate" due to an apparent increase in prickly pear. Wildlife habitat is satisfactory for mule deer.

Pasture #2 with its study site was visited on April 18, 2007. This pasture contains approximately 3461 acres. The study site representing this pasture is within a Very Shallow SD-3 ecosite. According to GIS, most of this pasture is within this ecosite. The pasture contains gently sloping, undulating terrain. Cattle had been in the area, but there was no discernable use at the study site.

Soil stability at the study area was relatively high. All soil stability indicators rated either "slight to moderate" or "none to slight". High levels of surface rock help protect the soil surface. There were no rills or gullies on site. Some sheet erosion has occurred and is occurring as indicated by pedestalling, particularly in flow patterns. Bare ground is much less than expected for the ecosite. The reduction of bare ground was due, in large part, to the presence of gravels and pavement on the soil surface. It is possible that, in past surveys, surface rock such as this was counted as part of the bare soil composition. The soil surface is relatively resistant to erosion in large part because of the amount of surface rock.

Hydrologic function was near what is expected for the site. Herbaceous cover is about what is expected for the ecosite. Some litter movement was observed within water flow patterns.

Indicators assessing biotic integrity for the site all fell into "slight to moderate" or "none to slight". Late growing season precipitation was greater than normal in 2006, making the annual production relatively high compared to the production potential for the ecosite. There is generally good species diversity, but the composition is shifting to a threeawn / *Tridens* community. Black grama should dominate. "Invasive Plants" rated "slight to moderate" due to an increase in snakeweed and widely scattered cholla. The area provides satisfactory habitat for pronghorn antelope and mule deer.

Pasture #3 contains approximately 3798 acres, all of which is public land. The terrain ranges from large, relatively flat, loamy areas to gently sloping, undulating, rocky areas. It is represented by two study sites located on the west and east portions of the pasture respectively. According to GIS, ecosites within this pasture include: Gravelly SD-3, Limestone Hills SD-3, Shallow SD-3, Loamy CP-2, Very Shallow CP-4, and Limestone Hills CP-4.

SITE 64025-#3-F093 on the east side of the pasture is within the Very Shallow CP-4 ecosite. This site was visited on April 19, 2007. At this time, some livestock use was observed; most of the use was on black grama. Soil stability at the study site was good. The area was well armored with surface rock. There was very little bare ground; flow patterns were short and stable. There were no rills or gullies at the site, but there were gullies nearby that were associated with a road. There has been some soil loss as indicated by a small amount of pedestalling.

Hydrologic function was near what is expected for the site. Herbaceous cover was near what is expected for the ecosite. Litter was evenly distributed throughout the site.

Indicators assessing biotic integrity for the site all fell into "slight to moderate" or "none to slight". Late growing season precipitation was greater than normal in 2006, making the annual production relatively high compared to the production potential for the ecosite. Species diversity is good, but the site has transitioned to a threeawn dominated grassland. Shrubs are about as expected, but snakeweed has increased over what is expected for the site. As a result F/S Groups is rated "slight to moderate". Invasive Plants also rates "slight to moderate" due to the increase in snakeweed and the widely scattered cholla throughout the site. Wildlife habitat is satisfactory for mule deer.

The second study site (SITE 64025-#3-2-F096) in this pasture was visited on April 18, 2007. At this time, no livestock were observed in the vicinity of the study site, but there was light use on blue grama and giant dropseed. This site is within the Loamy CP-2 ecosite. The study site is just north of Salt Creek. The terrain at this study site is flat with some bottom land features.

Soils are relatively stable. All indicators rate "slight to moderate" or "none to slight". Bare ground was less than expected for the ecosite, but there has been some soil loss as indicated by pedestalling in water flow patterns and bare areas. No rills or gullies were observed at the site.

Hydrologic function was near what is expected for the site. Herbaceous ground cover is about what is expected for the ecosite. Litter was evenly distributed throughout the site.

Most indicators assessing biotic integrity for the site all fell into "slight to moderate" or "none to slight". Late growing season precipitation was greater than normal in 2006, making the annual production relatively high compared to the production potential for the ecosite. F/S Groups rated "moderate" due to the reduction in vegetative diversity. Tobosa grass is by far the dominate grass. Burrograss appears to be increasing. Blue grama and black grama are minimal in the composition. Invasive Plants rates "slight to moderate" due to cholla being widely scattered throughout the site.

Pasture #4 with its study site was visited on March 23, 2007. This pasture contains approximately 3112 acres, all of which is public land. The study site representing this pasture is within a Shallow SD-3 ecosite. According to GIS, Limestone Hills SD-3 is also included in this pasture. Most of the pasture contains gently sloping, undulating terrain. Salt Creek runs through the southern part of the pasture. Cattle were present at the study site. Grazing use was moderate overall (30 - 40%), but heavy on black grama.

Soil stability at the study area was relatively high. All soil stability indicators rated either "slight to moderate" or "none to slight". High levels of surface rock help protect the soil surface. There were no rills or gullies on site. Some sheet erosion has occurred as indicated by a small amount of pedestalling, particularly in flow patterns. Flow patterns are short and stable. Bare ground is much less than expected for the ecosite. The soil surface is relatively resistant to erosion in large part because of the amount of surface rock.

Hydrologic function was near what is expected for the site. Herbaceous cover is greater than expected for the ecosite. Some litter movement was observed within water flow patterns.

Indicators assessing biotic integrity for the site all fell into "slight to moderate" or "none to slight". Late growing season precipitation was greater than normal in 2006, making the annual production relatively high compared to the production potential for the ecosite. At this site, production rated "slight to moderate". F/S Groups rated "slight to moderate" but this is trending toward "moderate" due to the substantial increase in snakeweed over what is expected and the shift in grass composition. The area has transitioned to a threeawn / *Tridens* grassland. Black grama and other grammas are minimal in the composition. There was a good crop of Indian wheat (*Plantago patagonica*). Invasive Plants rated "slight to moderate" based on the increase in

snakeweed and the widely scattered mesquite and cholla. Wildlife habitat is satisfactory for mule deer.

Pasture #5 contains approximately 4027 acres which has a mixture of public, state, and private lands. The terrain ranges from relatively flat, loamy areas to relatively hilly, rocky areas. Salt Creek runs through the northwest part of the pasture. The pasture is represented by two study sites located on the west and east portions of the pasture respectively. According to GIS, ecosites within this pasture include: Loamy SD-3, Shallow SD-3, and Limestone Hills SD-3 ecosites.

SITE 64025-#5-F095 on the west side of the pasture is within a Shallow SD-3 ecosite. This site was visited on April 18, 2007. No livestock use was observed at the time of the visit. The study site is located on moderately sloping, rocky terrain.

Soils on the site show a slight reduction in stability. Two of the indicators rated "moderate". Water flow patterns were connected; there were active pedestals (particularly in flow patterns and bare areas); there were occasional terracettes. The gravelly pavement is lending stability to the site, but soil aggregate stability appeared to be somewhat reduced throughout the site. There has been some soil loss as indicated by the pedestalling. There is a gully in the study site that is stabilizing with vegetation especially down slope. The headcut is revegetating.

Hydrologic function was rated similarly for the same reasons are stated above. Herbaceous ground cover is higher than expected for the site, but an increase in creosote bush and snakeweed along with patchy bare areas could likely affect infiltration and runoff in some areas.

Indicators assessing biotic integrity for the site all fell into "slight to moderate" or "none to slight". Late growing season precipitation was greater than normal in 2006, making the annual production relatively high compared to the production potential for the ecosite. There has been a shift in vegetation compared to the ESD. Snakeweed has increased over expected levels and creosote bush appears to be increasing. The site has shifted to a threeawn / Tridens grass-shrub mix. Gramas are still represented in the composition, but at lower levels than expected for the site.

The second study site (SITE 64025-#5-2-F097) in this pasture was visited on April 18, 2007. Cattle trails are evident through the site. Forage use was light throughout. This site is within the Loamy SD-3 ecosite near the east boundary of the allotment. The terrain at this study site is flat.

Soils on the site show a reduction in stability. Two of the indicators rated "moderate". Water flow patterns are long and continuous. Active sheet erosion is evident as indicated by the pedestalling and the formation of wide terracettes. Some of the terracette faces have exposed roots causing mortality of grasses along the edge. This indicator is trending toward "moderate to extreme". The ESD allows for a large percentage of bare ground. This site has less bare ground than expected in the ESD. There were no gullies in the area. There is some displacement of litter by water and wind. Soil aggregate stability is somewhat reduced in the interspaces.

Hydrologic function was rated similarly for the same reasons are stated above. Herbaceous ground cover is higher than expected for the ecosite. Even so, bare areas are affecting infiltration and runoff.

Most indicators assessing biotic integrity for the site all fell into "slight to moderate" or "none to slight". Invasive Plants rated "moderate" due to cholla, prickly pear and mesquite being scattered throughout the site. Late growing season precipitation was greater than normal in 2006, making the annual production relatively high compared to the production potential for the ecosite. Annual Production rated "slight to moderate". Burrograss is gaining in dominance. The site has transitioned to a tobosa grass / burrograss grassland. The site remains satisfactory for pronghorn antelope.

It is the professional opinion of the Assessment Team, public land within allotment #64025, Upper Salt Creek meets Upland and Biotic Standards. There are no Riparian issues present therefore this standard was not addressed. See site notes, comments and recommendations for further information regarding this assessment.

**Recommendations:** All study sites show a shift in composition within the grass community. Loamy areas within the allotment are dominated by Tobosa grass with a noticeable reduction in other more desirable grasses. Prescribed burning or other disturbance (i.e. herd effect) followed by appropriate rest may help improve vegetative diversity. For all sites, consider alternating or changing the timing and duration of grazing to allow desirable forage plants to re-establish and reproduce. Managers may want to consider resting pastures where evidence of erosion is common or increasing, in order to allow establishment and recovery of herbaceous ground cover.

Gullies are mostly associated with road or other constructed features. Roads passing through the allotment have resulted in accelerated runoff into local drainages. There is active cutting occurring. All the roads within this allotment should be evaluated for this condition and corrective measures taken.

<b>RFOs Upland and Biotic Standard Assessment Summary Worksheet</b>			
<b>SITE 64025-#1-F091</b>			
Legal Land Desc	NWNE 15 0080S 0220E Meridian 23	Acreage	3443
Ecosite	042CY025NM SHALLOW SD-3	Photo Taken	Y
Watershed	13060005070 SALT		
Observers	JACKSON; BRITTON	Observation Date	03/23/2007
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	EbC	Soil Taxon Name	ECTOR
Texture Class	NM644 CBV-L	Soil Phase	ECTOR
Texture Modifier	NM644 VERY COBBLY		

	LOAM,D		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	10.55	NOAA Growing Season Precipitation	8.18
NOAA Avg Annual Precipitation	9.73	NOAA Avg Growing Season Precipitation	8.01
Disturbances and Animal Use:	Not currently grazed.		

## Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:	Very rocky. Flow patterns are short and stable.					
S H	Pedestals and/or Terracettes				X	
Comments:	A few pedestals in flow patterns.					
S H	Bare Ground					X
Comments:	Much less than expected for this ecosite. There is a lot of surface rock.					
S H	Gullies				X	
Comments:	Area adjacent to road accessing site is starting to gully. Gullies are networking out from ranch headquarters and are associated with roads or other constructed features.					
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:						
H	Litter Movement				X	
Comments:	some litter movement by wind and water.					
S H B	Soil Surface Resistance to Erosion				X	
Comments:	Some reduction in stability in plant and rock interspaces.					
S H B	Soil Surface Loss or Degradation				X	
Comments:	Soil loss is minimal. Some pedestalling indicates some soil loss.					
H	Plant Community Composition					X

	and Distribution Relative to Infiltration and Runoff					
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups				X	
Comments:	Shrubs and half shrubs have increased on the site. Snakeweed is higher than expected. Grasses have shifted in composition from expected. Threeawns are the dominant grass. Black grama is still in the composition but substantially under what is expected. Other grammas are minimal in the composition. This is trending toward moderate.					
B	Plant Mortality/Decadence					X
Comments:	There is some mortality in snakeweed.					
H B	Litter Amount					X
Comments:	Has been exceeding the expected range.					
B	Annual Production					X
Comments:	Within 80% of potential. Good late season summer rains.					
B	Invasive Plants				X	
Comments:	Prickly pear appears to be increasing.					
B	Reproductive Capability of Perennial Plants					X
Comments:	There are no current restrictions to reproductive capability. All grasses had evidence of seed production.					
S	Physical/Chemical/Biological Crusts				X	
Comments:	Evident throughout the site, but discontinuous.					
B	Wildlife Habitat					X
Comments:	Habitat is good for mule deer.					
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	N/A					
B	Special Status Species Populations					X
Comments:	N/A					
<b>Part 3. Summary</b>						
A. Indicator Summary - Each of the indicators are associated with one or more of the attributes						

below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	0	6	4
H	Hydrologic	0	0	0	6	5
B	Biotic	0	0	0	5	8

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil	Soil stability is good on the site with only minimal evidence of soil loss. High amount of surface rock lends stability to the site.	0	0	10
Hydrologic		0	0	11
Biotic	Biotic integrity is good on the site. F/S Groups has slightly degraded with an increase in snakeweed and prickly pear and with a shift in grass composition. The site is transitioning to a threeawn / Tridens grassland.	0	0	13

Site Notes: The site did not appear to fit well with a Shallow SD-3. Soil stability was good. Hydrologic function was good. Biotic integrity is still good, but there has been in a shift in composition of grasses. Black and other gramas are adequately represented. Threeawns are dominant. Tridens spp. are increasing.

Plants species encountered included: Shrubs: Yucca, OPUNT (cholla), OPUNT (prickly pear), MIAC (catclaw), DAFO, GUSA2, GUMI, NOLINA, Forbs: pussytoes, ERIOG, Grasses: ARIST, ARPU, SPCR, BOER, BOGR2, ERIN, MUSQ, ERPU, TRMU

### RFOs Upland and Biotic Standard Assessment Summary Worksheet

#### SITE 64025-#2-F092

Legal Land Desc	NESW 16 0080S 0220E Meridian 23	Acreage	2392
Ecosite	070DY158NM VERY SHALLOW CP-4	Photo Taken	Y
Watershed	13060005070 SALT		

Observers	BRITTON; REBITZKI	Observation Date	04/18/2007
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	EaC	Soil Taxon Name	ECTOR
Texture Class	NM644 CBV-L	Soil Phase	ECTOR
Texture Modifier	NM644 VERY COBBLY LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	10.55	NOAA Growing Season Precipitation	8.18
NOAA Avg Annual Precipitation	9.73	NOAA Avg Growing Season Precipitation	8.01
Disturbances and Animal Use:	A two track road passes through the site. Cattle have been in the area, but there is very little use in the vicinity of the study site.		

## Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:	None observed. Site is very rocky.					
S H	Water Flow Patterns				X	
Comments:	Flow patterns are short and stable.					
S H	Pedestals and/or Terracettes				X	
Comments:	There is some pedestalling, mostly in flow patterns.					
S H	Bare Ground					X
Comments:	Much less than expected for the site.					
S H	Gullies					X
Comments:	None observed on site.					
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:						
H	Litter Movement				X	
Comments:	Some displacement by water and wind.					
S H B	Soil Surface Resistance to Erosion				X	

Comments:	There is some reduction in resistance to erosion throughout the site, but more noticeable in plant and rock interspaces.					
S H B	Soil Surface Loss or Degradation				X	
Comments:	Some soil loss has occurred as evidenced by some pedestalling.					
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff					X
Comments:	Herbaceous cover and distribution is adequate.					
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups				X	
Comments:	Snakeweed has increased over expected. Grass composition has shifted more to threeawns. Black grama is still well represented.					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount					X
Comments:	Greater than expected for the site.					
B	Annual Production					X
Comments:	Appears to exceed 80% of potential. There was higher than normal precip. in the late growing season of 2006.					
B	Invasive Plants				X	
Comments:	Snakeweed is increasing. Cholla are widely scattered throughout.					
B	Reproductive Capability of Perennial Plants					X
Comments:	All grasses produced seed in 2006.					
S	Physical/Chemical/Biological Crusts				X	
Comments:	Evident throughout the area but discontinuous.					
B	Wildlife Habitat					X
Comments:	Appears to be good for pronghorn and mule deer.					
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	N/A					
B	Special Status Species Populations					X
Comments:	N/A					

**Part 3. Summary**

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	0	5	5
H	Hydrologic	0	0	0	5	6
B	Biotic	0	0	0	5	8

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil	Soils are relatively stable. There is a lot of surface rock lending stability to the site. Soil loss is minimal.	0	0	10
Hydrologic		0	0	11
Biotic	Herbaceous cover and production is good. Species diversity remains adequate, but the area is transitioning to a threeawn / Tridens grassland.	0	0	13

Site Notes: Soils are relatively stable throughout. There is a lot of surface rock lending stability to the site. Pedestalling is minimal. There is generally good species diversity, but the composition is shifting to a threeawn / Tridens dominance. Black grama should dominate.

Plant species encountered included: shrubs: MIAC, GUSA2, GUMI, OPUNT (cholla), Echinocactus spp., OPUNT (purple prickly pear), Yucca,

forbs: verbena, Allium, Erodium spp., ERIGE,

grasses: BOER, BOCU, BOGR2, ERPI, TRMU, SCBR, PLMU, ARPU, ARIST

**RFOs Upland and Biotic Standard Assessment Summary Worksheet**

**SITE 64025-#3-2-F096**

Legal Land Desc	SWNE 28 0080S 0220E Meridian 23	Acreage	1786
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Ecosite	070BY052NM LOAMY CP-2	Photo Taken	Y
Watershed	13060005070 SALT		
Observers	BRITTON; REBITZKI	Observation Date	04/18/2007
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	HDA	Soil Taxon Name	HODGINS
Texture Class	NM644 SIL	Soil Phase	HODGINS-RANSTEIN
Texture Modifier	NM644 SILT LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	10.55	NOAA Growing Season Precipitation	8.18
NOAA Avg Annual Precipitation	9.73	NOAA Avg Growing Season Precipitation	8.01
Disturbances and Animal Use:	No livestock were observed in the vicinity of the study site. A two track road passes through the site. There has been light use on blue grama and giant dropseed.		

### Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:	Nearly flat. Good grass cover.					
S H	Water Flow Patterns				X	
Comments:	Short and stable.					
S H	Pedestals and/or Terracettes				X	
Comments:	Some pedestalling has occurred.					
S H	Bare Ground					X
Comments:	Less than expected for the ecosite.					
S H	Gullies					X
Comments:	None observed.					
S	Wind-scoured, Blowouts, and/or					X

	Deposition Areas					
Comments:						
H	Litter Movement					X
Comments:						
S H B	Soil Surface Resistance to Erosion				X	
Comments:	The few areas that have less cover have slightly reduced resistance.					
S H B	Soil Surface Loss or Degradation				X	
Comments:	Some soil loss is evident in plant interspaces.					
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff					X
Comments:	Generally good herbaceous cover throughout.					
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups			X		
Comments:	Tobosa grass dominates the site. Burrograss appears to be increasing. Since this is a Loamy CP-2 ecosite, blue grama and black grama should be the dominant. Black grama was not observed and blue grama is minimal in the composition.					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount					X
Comments:	As expected for the site.					
B	Annual Production					X
Comments:	Exceeds 80% of potential. 2006 had greater than normal precip during the late growing season.					
B	Invasive Plants				X	
Comments:	Cholla are widely scattered throughout the site.					
B	Reproductive Capability of Perennial Plants					X
Comments:	Last year's grasses produced seed, however, reduced amount of desirable grasses may indicate that this has been a problem in the past along with the absence of fire.					
S	Physical/Chemical/Biological Crusts				X	
Comments:	Biotic crusts are very scattered.					
B	Wildlife Habitat					X
Comments:	The reduced plant diversity diminishes the quality of wildlife habitat, but it remains					

	satisfactory.					
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	N/A					
B	Special Status Species Populations					X
Comments:	N/A					

### Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	0	5	5
H	Hydrologic	0	0	0	4	7
B	Biotic	0	0	1	4	8

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil	All indicators are "slight to moderate" or "none to slight". Soils are relatively stable.	0	0	10
Hydrologic		0	0	11
Biotic	Biotic integrity is generally good. Production is good. Species diversity is reduced causing F/S groups to rate moderate.	0	1	12

Site Notes: Salt Creek runs through a corner of the site. Soils on the site are relatively stable. The area is nearly flat and has good herbaceous cover. Some patches with less cover are showing signs of sheet erosion. Pedestalling is common in these areas. Vegetative diversity is reduced. Tobosa grass dominates the site. Burrograss appears to be increasing.

Plant species encountered included:

Shrubs: Juniperus spp.; OPUNT (cholla), Yucca Forbs: Verbena, Lesquerella spp., yellow mustard Grasses: PLMU, BOGR2, SCBR, TRPI, TRMU, SPCR, SPGI

**RFOs Upland and Biotic Standard Assessment Summary Worksheet**

**SITE 64025-#3-F093**

Legal Land Desc	SWSE 26 0080S 0220E Meridian 23	Acreage	1786
Ecosite	070DY158NM VERY SHALLOW CP-4	Photo Taken	Y
Watershed	13060005070 SALT		
Observers	BRITTON; REBITZKI	Observation Date	04/19/2007
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	EaC	Soil Taxon Name	ECTOR
Texture Class	NM644 CBV-L	Soil Phase	ECTOR
Texture Modifier	NM644 VERY COBBLY LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	10.55	NOAA Growing Season Precipitation	8.18
NOAA Avg Annual Precipitation	9.73	NOAA Avg Growing Season Precipitation	8.01
Disturbances and Animal Use:	Recent grazing use is slight throughout the area. Most of the use in on black grama. An old two-track road passes through the site.		

**Part 2. Attributes and Indicators**

Attribute	Indicators	Departure from Ecological Site Description/Ecological Reference Areas				
		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:	Sight is well armored with rock.					
S H	Water Flow Patterns				X	
Comments:	Flow patterns are short and stable.					
S H	Pedestals and/or Terracettes				X	

Comments:	There is some pedestalling in flow patterns.					
S H	Bare Ground					X
Comments:	Much less than expected for the ecosite. There is a lot of surface rock.					
S H	Gullies					X
Comments:	Gullies are nearby and are associated with roads.					
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:						
H	Litter Movement					X
Comments:	Minimal displacement. Uniform throughout.					
S H B	Soil Surface Resistance to Erosion					X
Comments:	Good aggregate stability.					
S H B	Soil Surface Loss or Degradation				X	
Comments:	Slight.					
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff					X
Comments:	Very near what is expected for the site.					
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups				X	
Comments:	There has been a change in composition compared to what is expected for the site. Threeawns are the dominant grasses. Black grama is still in the mix, but is not dominant as expected.					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount					X
Comments:	Exceeds the expected for the site.					
B	Annual Production					X
Comments:	Probably exceeds 80% of potential. There was higher than ave. late growing season precip. in 2006.					
B	Invasive Plants				X	
Comments:	Snakeweed appears to be increasing. Cholla are widely scattered throughout the site.					
B	Reproductive Capability of Perennial Plants					X

Comments:	Grasses were able to produce seed in 2006.					
S	Physical/Chemical/Biological Crusts				X	
Comments:	Evident throughout, but discontinuous.					
B	Wildlife Habitat					X
Comments:	Satisfactory for mule deer.					
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	N/A					
B	Special Status Species Populations					
Comments:	N/A					

### Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	0	4	6
H	Hydrologic	0	0	0	3	8
B	Biotic	0	0	0	4	8

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil	Soils are stable with only minor evidence of erosion.	0	0	10
Hydrologic		0	0	11
Biotic	Biotic integrity is good, but the site has transitioned to a threeawn dominated grassland.	0	0	12

Site Notes: Soils are stable, but there is some evidence of soil loss through sheet erosion. There are small pedestals throughout the site. Species diversity is good, but the site has transitioned to a threeawn dominated grassland. Shrubs are about as expected, but snakeweed has increased over what is expected for the site. There is an active gully associated with the road near this site.

Plants encountered included:

shrubs: Cholla, Yucca, LATR, prickly pear, MIAC (catclaw), GUSA2, GUMI, Echinocactus spp., NOLINA, pencil cholla

forbs: ERBO (filaree), Verbena, Erigeron spp., Solanum spp.,

grasses: BOGR2, BOER, TRPI, TRMU, SPCR, MUSQ, ERPU, ARIST, ARPU, PLMU, SCBR, BOCU

### RFOs Upland and Biotic Standard Assessment Summary Worksheet

#### SITE 64025-#4-F094

Legal Land Desc	SWSW 12 0080S 0220E Meridian 23	Acreage	2217
Ecosite	042CY025NM SHALLOW SD-3	Photo Taken	Y
Watershed	13060005070 SALT		
Observers	JACKSON; BRITTON	Observation Date	03/23/2007
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	EbC	Soil Taxon Name	ECTOR
Texture Class	NM644 CBV-L	Soil Phase	ECTOR
Texture Modifier	NM644 VERY COBBLY LOAM,D		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	10.55	NOAA Growing Season Precipitation	8.18
NOAA Avg Annual Precipitation	9.73	NOAA Avg Growing Season Precipitation	8.01
Disturbances and Animal Use:	Cattle were present. Grazing use was moderate overall (30 - 40%), but heavy on black grama. A road passes through the site.		

#### Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to	Moderate	Slight to Moderate	None to

			Extreme			Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:	Few and short and stable.					
S H	Pedestals and/or Terracettes				X	
Comments:	Active pedestalling is rare and mostly within flow patterns.					
S H	Bare Ground					X
Comments:	There is a lot of surface rock. Bare ground is much less than expected.					
S H	Gullies					X
Comments:	None on site.					
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:						
H	Litter Movement				X	
Comments:	There is some displacement by wind and water.					
S H B	Soil Surface Resistance to Erosion				X	
Comments:	Moderate aggregate stability in interspaces.					
S H B	Soil Surface Loss or Degradation					X
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff					X
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups				X	
Comments:	Site has transitioned to a threeawn / Tridens grassland. Gramas are minimal in the composition. Burrograss is increasing.					
B	Plant Mortality/Decadence					X
Comments:	Some of the snakeweed has died and is dying.					
H B	Litter Amount				X	
Comments:	Falls within expected range of the ESD.					
B	Annual Production				X	
Comments:	Estimated to be within 60-80% of potential. Factors in approx. 40% current use.					

B	Invasive Plants				X	
Comments:	There is a significant increase in snakeweed over what is expected for the site. Mesquite and cholla are widely scattered throughout the site.					
B	Reproductive Capability of Perennial Plants					X
Comments:	All grasses produced seed last year. Past grazing use patterns may have restricted reproductive capability on more desirable forage grasses resulting in a change in composition from what is expected for the ecosite.					
S	Physical/Chemical/Biological Crusts				X	
Comments:	Evident throughout, but discontinuous.					
B	Wildlife Habitat					X
Comments:	Satisfactory for mule deer.					
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	N/A					
B	Special Status Species Populations					X
Comments:	N/A					

### Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	0	4	6
H	Hydrologic	0	0	0	5	6
B	Biotic	0	0	0	6	7

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not	May	Meets
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		Meet	Need More Info	
Soil	Soils are relatively stable with higher herbaceous cover than expected for the site. High surface rock lends stability to the site. Soil loss is minimal.	0	0	10
Hydrologic		0	0	11
Biotic	Biotic integrity remains intact, but the site has transitioned to a threeawn / Tridens grassland with an increase in snakeweed. Annual production is good.	0	0	13

Site Notes: Soil stability on the site was good. There has been some soil loss as evidenced by some pedestalling. There is a lot of surface rock which lends stability to the site.

The site has transitioned to a threeawn / Tridens grassland. Gramas are minimal in the composition. Snakeweed has increased substantially over what is expected for the site. Herbaceous ground cover is greater than expected for the site. There was a good crop of Indian Wheat.

Plants species encountered included: shrubs: OPUNT (cholla), LATR, PRGL, MIAC, NOLIN, GUSA2, GUMI forbs: Verbena, pussytoes, ERBO (filaree), PLPA grasses: TRPI, TRMU, SPCR, BOER, BOGR2, SCBR, ERPU, ARIST, ARPU

### RFOs Upland and Biotic Standard Assessment Summary Worksheet

#### SITE 64025-#5-2-F097

Legal Land Desc	NENE 30 0080S 0230E Meridian 23	Acreage	1629
Ecosite	042CY007NM LOAMY SD-3	Photo Taken	Y
Watershed	13060005070 SALT		
Observers	JACKSON; DILLEY	Observation Date	04/18/2007
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	URB	Soil Taxon Name	UPTON
Texture Class	NM644 SIL	Soil Phase	UPTON- REAKOR
Texture Modifier	NM644		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	10.55	NOAA Growing Season Precipitation	8.18
NOAA Avg Annual	9.73	NOAA Avg Growing Season	8.01

Precipitation		Precipitation	
Disturbances and Animal Use:	A road passes through the site. The site is near the allotment boundary fence. Cattle trails are evident through the site. Forage use was light throughout.		

**Part 2. Attributes and Indicators**

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns			X		
Comments:	Long, continuous flows with erosion active in places.					
S H	Pedestals and/or Terracettes			X		
Comments:	Wide terracettes are forming particularly associated with the road near the plot post. There is active pedestalling on terracette faces. Most exposed roots are associated with the terracettes, but starting to occur in water flow patterns. There is some root exposure causing mortality in grasses.					
S H	Bare Ground					X
Comments:	Bare ground is less than expected, which is misleading given the amount of erosion occurring.					
S H	Gullies					X
Comments:	None observed.					
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:						
H	Litter Movement				X	
Comments:	Litter is being displaced by water and wind.					
S H B	Soil Surface Resistance to Erosion				X	
Comments:	Hard physical crusts are present, but aggregate stability is reduced in the interspaces.					
S H B	Soil Surface Loss or Degradation				X	
Comments:	Sheet erosion is occurring, especially in interspaces.					
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	

Comments:	A change in plant distribution (patchy open areas) is affecting infiltration and runoff.					
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups				X	
Comments:	The site has transitioned to a tobosa / burrograss grassland. There is very little black grama in the composition.					
B	Plant Mortality/Decadence					X
Comments:	Trending to slight to moderate. Mortality is related to pedestalling on terracette faces.					
H B	Litter Amount				X	
Comments:	As expected for the site.					
B	Annual Production				X	
Comments:	Between 60 and 80% of potential. Late growing season precip was higher than ave in 2006.					
B	Invasive Plants			X		
Comments:	cholla, prickly pear and mesquite are scattered throughout the site.					
B	Reproductive Capability of Perennial Plants					X
Comments:	No apparent current restrictions, however, timing and duration of grazing may have affected the reproductive capability of desirable forage plants over time.					
S	Physical/Chemical/Biological Crusts				X	
Comments:	Evident throughout the site but continuity is broken.					
B	Wildlife Habitat					X
Comments:	Habitat for mule deer is satisfactory.					
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	N/A					
B	Special Status Species Populations					X
Comments:	N/A					
<b>Part 3. Summary</b>						
A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.						

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	2	3	5
H	Hydrologic	0	0	2	5	4
B	Biotic	0	0	1	6	6

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil	Soils are showing signs of degradation, but the relatively high ground cover is still providing soil stability. Most indicators are still in the acceptable range.	0	2	8
Hydrologic		0	2	9
Biotic	Biotic integrity remains relatively high, but the site has transitioned to a tobosa grass / burrograss grassland. Cholla, prickly pear and mesquite are getting a foothold on the site. The site has an apparent downward trend.	0	1	12

Site Notes: Soils are less stable than desired as evidenced by the water flow patterns and pedestalling. Wide terracettes are forming. Burrograss is gaining in dominance. The site has transitioned to a tobosa grass / burrograss grassland. Shrubs ie cholla, prickly pear and mesquite are beginning to invade.

Plants encountered included:

shrubs: PRGL, OPUNT (cholla), OPUNT (prickly pear) forbs: Verbena spp., globemallow, Astragalus spp (locoweed) grasses: PLMU3, SCBR

### RFOs Upland and Biotic Standard Assessment Summary Worksheet

#### SITE 64025-#5-F095

Legal Land Desc	SWSE 25 0080S 0220E Meridian 23	Acreage	1629
Ecosite	042CY025NM SHALLOW SD-3	Photo Taken	Y

Watershed	13060005070 SALT		
Observers	JACKSON; DILLEY	Observation Date	04/18/2007
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	EbC	Soil Taxon Name	ECTOR
Texture Class	NM644 CBV-L	Soil Phase	ECTOR
Texture Modifier	NM644 VERY COBBLY LOAM,D		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	10.55	NOAA Growing Season Precipitation	8.18
NOAA Avg Annual Precipitation	9.73	NOAA Avg Growing Season Precipitation	8.01
Disturbances and Animal Use:	A natural gas pipeline passes through the site. No grazing use was apparent at the site at the time of the visit.		

## Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns			X		
Comments:	Flow patterns are connected. Erosion is evident.					
S H	Pedestals and/or Terracettes			X		
Comments:	There are occasional small terracettes forming. There is active pedestalling especially in flow patterns and exposed areas.					
S H	Bare Ground					X
Comments:	Bare ground is much less than expected, but there is a lot of gravelly pavement on the site.					
S H	Gullies				X	
Comments:	There is a gully in the plot that is stabilizing with vegetation especially down slope. The headcut is revegetating.					
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:						

H	Litter Movement				X	
Comments:	Litter is being displaced by water and wind.					
S H B	Soil Surface Resistance to Erosion				X	
Comments:	Soil aggregate stability is reduced throughout the site.					
S H B	Soil Surface Loss or Degradation				X	
Comments:	Soil loss has occurred. Sheet erosion from overland flows is evident.					
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:	In terms of ground cover, snakeweed appears to be the dominant species. Creosote bush appears to be increasing on the site. Total shrub and half shrub cover is higher than expected for the site and herbaceous cover exceeds the expected level. The abundance of snakeweed and creosote and the distribution of herbaceous cover is affecting infiltration and runoff.					
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups				X	
Comments:	Shrubs and half shrubs appear to be increasing on the site. The grass community appears to be shifting to a threeawn / Tridens grass-shrub mix. Black grama is still well represented in the composition, but is not the dominant grass.					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount					X
Comments:	Falls within expected range for the ESD.					
B	Annual Production					
Comments:	Late growing season precip. was higher than average in 2006. Annual production is estimated to exceed 80% of potential.					
B	Invasive Plants				X	
Comments:	The increase in snakeweed and creosote bush (both increasers) places this in the slight to moderate category.					
B	Reproductive Capability of Perennial Plants					X
Comments:	No apparent restrictions on reproductive capability.					
S	Physical/Chemical/Biological Crusts				X	
Comments:	Evident throughout the site but continuity is broken.					
B	Wildlife Habitat					X

Comments:	Satisfactory for mule deer.					
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	N/A					
B	Special Status Species Populations					X
Comments:	N/A					

### Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	2	4	4
H	Hydrologic	0	0	2	5	4
B	Biotic	0	0	0	5	7

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil	Soils are relatively stable. The gravel pavement lends stability to the site. There has been some soil loss as evidenced by flow patterns and pedestalling.	0	2	8
Hydrologic		0	2	9
Biotic	All indicators fall within "slight to moderate" or "none to slight". However, the site has transitioned to a threeawn / Tridens grass-shrub mix.	0	0	12

Site Notes: The gravelly pavement lends stability to the soil surface. There has been soil loss as evidenced by water flow patterns and pedestalling. Overall, the site is relatively stable. There has been a shift in vegetation compared to the ESD. Snakeweed has increased over expected levels and creosote bush appears to be increasing. The site has shifted to a threeawn / Tridens grass-shrub mix. Gramas are still represented in the composition, but at lower levels than expected for

the site.

A nearby hilly area is experiencing substantial erosion with a high percentage of bare ground. This area appears to be heavily used by livestock.

Plant species encountered included: shrubs: LADI2, GUSA2, GUMI, pencil cholla, OPUNT (cholla), Yucca, MIAC forbs: Astragalus spp., Verbena, ERBO (filaree), PLPA (Indian wheat), grasses: ARIST, ARPU, BOER4, BOGR2, PLJA, ERPU, SPCR

## **Determination of Public Land (Rangeland) Health for 64025 UPPER SALT CREEK**

The Record of Decision (ROD) for the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (dated January 2001) adopted three Standards for Public Land Health. These are (1) Upland Sites Standard, (2) Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard and (3) Riparian Sites Standard.

The ROD also established a process for the BLM Field Offices for implementation. Through a public participation process, the Roswell Field Office developed and adopted indicators to use in conjunction with existing monitoring data to assess these standards.

Field assessment worksheets and other available data that evaluate the local indicators were completed for this allotment. Based on these assessments, it is my determination that public land within Upper Salt Creek, allotment #64025, meets the (1) Upland Sites standard and (2) Biotic Communities, including Native, Threatened, Endangered, and Special Status Species standard. There are no public land Riparian areas on this allotment, therefore this standard was not addressed.

/s/ EDDIE BATESON  
Assistant Field Manager

08/24/2007  
Date